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ANNUAL REPORT

ON THE WORK

OF THE

CITY LABORATORIES

DURING THE YEAR

1955

D. J. T. BAGNALL, A.C.G.F.C., F.R.I.C.
Public Analyst and Corporation Bacteriologist

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CITY LABORATORIES

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Official Agricultural Analyst and Port Analyst,
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Laboratory Steward :
P. E. Smith

E. S. Wise (*Clerk*)

Laboratory Attendants :
Miss O. Wright
Miss D. Wright

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The City Laboratories,
184 High Street,
Kingston upon Hull.

To the Members of the City Council of Kingston upon Hull.

My Lord Mayor, Ladies and Gentlemen,

I have the honour to present my Annual Report on the work of the City Laboratories during the year 1955.

The total number of samples examined was 8,888, as compared with 9,281 in 1954, of which 3,370 were submitted under the Food and Drugs Act, The percentage of unsatisfactory samples procured in the City under the Act was 4.3, as compared with 5.5 in the previous year. Of the 81 unsatisfactory samples of food and drugs, other than milk, 44 were reported against solely on account of omissions of legally required details on the labels or misstatements thereon.

The work of the department becomes increasingly onerous and complex under modern legislation and with the production of new types of complicated foods. An extra strain has been placed upon the staff owing to the absence from duty, for nearly half of the year, of Mr. Arthur Smith, Deputy City Analyst, due to a serious illness which has recently culminated in his resignation after nearly 29 years valuable service. I would like to express my sincere appreciation of the zealous work of my assistants and of the ever-ready co-operation of the Sampling Officers of the Medical Officer of Health's department.

Members of various organisations have paid visits to the laboratories and invariably they have been impressed by the scope of the work carried out.

Your obedient Servant,

D. J. T. BAGNALL,
Public Analyst and
Corporation Bacteriologist.

CLASSIFICATION OF SAMPLES

During the year the number of samples of all kinds examined was 8,888, made up as shown below.

Kingston upon Hull				
CHEMICAL				
Food and Drugs Act—				
Formal	36			
Informal	2797			
Private	18			
		2851		
Fertilisers and Feeding-Stuffs		26		
Atmospheric Pollution		800		
Miscellaneous		3177		
			6854	
BACTERIOLOGICAL				
Milk		597		
Ice Cream		46		
Ice Lollies, etc.		43		
Waters		490		
Miscellaneous		260		
			1436	
				8290
East Riding of Yorkshire County Council				
Food and Drugs Act—				
Formal		413		
Informal		96		
Milk (Appeal to Cows)		10		
				519
Hull and Goole Port Health Authority				79
				8888

City and County of Kingston upon Hull

The results of the analyses of the formal and informal samples taken under the Food and Drugs Act in this City are given below, 4.3 per cent. being unsatisfactory as compared with 5.5 per cent. in the previous year.

Article	Total	Genuine	Unsatisfactory
Food :			
Almonds, Ground	6	6	—
Arrowroot	8	8	—
Bacon	9	9	—
Baking Powder	6	6	—
Barley, Pearl	7	7	—
Beans, Canned	6	6	—
,, Baked	7	6	1
,, Butter	8	8	—
,, Haricot	8	8	—
Beans with Pork Sausages, Canned	2	2	—
Beef Roll	1	1	—
Beer	1	1	—
Biscuits	19	18	1
Blanc Mange Powders	5	3	2
Brawn	6	6	—
Bread	10	9	1
Bread and Butter	4	3	1
Breakfast Foods	23	21	2
Butter	8	8	—
Cake Mixtures	8	8	—
Caraway Seeds	8	8	—
Cheese	8	8	—
Cheese Spread	8	8	—
Cherries, Glace	8	5	3
Chitterlings	7	7	—
Chocolate, Drinking	2	2	—
Cider	7	7	—
Cinnamon, Ground	8	7	1
Cocoa	4	4	—
Coconut, Desiccated	8	8	—
Coffee	11	11	—
Coffee Extract	2	2	—
Coffee Flavoured Beverage	1	1	—
Coffee & Chicory Essence	10	10	—
Coffee & Chicory Mixture	1	1	—
Confectionery (Brandy Snap)	1	1	—
,, (Pastry)	18	18	—
,, (Popcorns, cheese flavoured)	1	1	—
Carried forward	265	253	12

Article	Total	Genuine	Unsatis-factory
Brought forward	265	253	12
Confectionery (Sweets)	19	19	—
Cooking Fat	4	4	—
Cornflour	3	3	—
Crab, Dressed	4	3	1
Crab Dressing	1	—	1
Crab Meat	1	1	—
Crab Paste or Spread	3	3	—
Cream, Sterilised	6	6	—
Custard Powders	8	7	1
Dripping	6	6	—
Essence of Rennet	1	1	—
Fish, Canned	12	11	1
Fish, Smoked	16	16	—
Fish Paste	7	7	—
Flour	8	8	—
,, Self Raising	8	8	—
Food Colouring	7	7	—
Food Flavouring	8	6	2
Fruit, Preserved	42	34	8
Gelatine	9	9	—
Gin	2	2	—
Ginger, Ground	8	7	1
Golden Syrup	1	1	—
Gravy Salt	4	4	—
Ham	5	5	—
Herbs, Dried	7	7	—
Honey	8	8	—
Ice Cream	46	46	—
Ice or Ice Cream Lollies	20	12	8
Jam	29	26	3
Jellies	10	9	1
Lard	11	11	—
Lemon Cheese or Curd	16	14	2
Lentils	7	7	—
Luncheon Meat	1	1	—
Macaroni	5	5	—
Margarine	14	14	—
Meat, Canned	13	12	1
Meat Cubes	1	1	—
Meat Extract	1	1	—
Meat Paste	15	15	—
Meat Puddings, Canned	2	2	—
Milk	1530	1490	40
,, Condensed	21	21	—
Carried forward	2215	2133	82

Article	Total	Genuine	Unsatis-factory
Brought forward	2215	2133	82
Milk, Evaporated	3	3	—
Mincemeat	8	8	—
Mustard	5	5	—
Non-brewed Condiment	13	13	—
Oats	6	5	1
Oatmeal	4	4	—
Peas, Canned	8	8	—
,, Dried	18	18	—
Peel, Candied	8	5	3
Pepper	7	7	—
,, Cayenne	1	1	—
Pepper Compound	2	2	—
Perry	1	1	—
Pickles	20	17	3
Polony	11	11	—
Potato Crisps	14	14	—
Prawns	8	8	—
Rice	14	14	—
,, Ground	11	11	—
Rum	2	2	—
Sago	9	9	—
Salad Cream	6	6	—
Salt	6	6	—
Sandwich Spread	3	3	—
Sauce	7	7	—
Sausages, Beef	8	8	—
,, Pork	13	7	6
Semolina	6	6	—
Shrimps	7	7	—
Soft Drinks	26	24	2
Soft Drink Powders	7	7	—
Soup, Canned	9	9	—
Soup Powders	3	3	—
Stuffing, Sage & Onion	1	1	—
Suet, Shredded	8	7	1
Sugar	11	11	—
,, Demerara	7	7	—
,, Icing	8	8	—
Table Cream Powders	2	2	—
Tapioca	5	5	—
Tea	11	11	—
Toffee Apples	2	—	2
Tomatoes, Canned	6	6	—
Treacle	3	3	—
Carried forward	2553	2453	100

Article	Total	Genuine	Unsatis-factory
Brought forward	2553	2453	100
Tripe	4	4	—
Udder	3	3	—
Vinegar	7	7	—
Whisky	2	2	—
Wine, Alcoholic	4	4	—
Yeast	8	8	—
Yeast Extract	1	1	—
Yeast Flakes	1	1	—
Drugs : Aspirin Tablets	10	10	—
Bicarbonate of Soda	7	7	—
Bismuth Lozenges	8	8	—
Blaud's Pills	8	6	2
Boracic Acid Powder	7	7	—
Boric Acid Ointment	6	6	—
Boric Lint	8	7	1
Calcium Lactate Tablets	5	5	—
Cod Liver Oil	4	4	—
Cod Liver Oil Emulsion	1	1	—
Cod Liver Oil & Malt Extract	7	6	1
Cough Mixtures	8	6	2
Epsom Salts	8	8	—
Eucalyptus Oil	6	6	—
Flowers of Sulphur	8	8	—
Glauber's Salt	5	5	—
Glycerin & Borax	8	8	—
Halibut Oil Capsules	2	2	—
Health Salts	6	6	—
Hydrogen Peroxide, Soln. of	5	2	3
Iodine, Tincture of	6	6	—
Liquid Paraffin	8	8	—
Liquorice Powders, Compound	9	9	—
Lozenges, Medicated	1	—	1
Oil of Wintergreen	6	6	—
Olive Oil	15	15	—
Parrish's Chemical Food	8	2	6
Phenacetin Tablets	7	7	—
Rose Hip Syrup	1	1	—
Seidlitz Powders	8	7	1
Soda Mints	8	7	1
Sodium Citrate Tablets	8	8	—
Sulphur Tablets	8	7	1
Vitamin B_1 Tablets	9	8	1
Vitamin C Tablets	8	8	—
Yeast Tablets	6	5	1
Zinc Ointment	7	7	—
TOTALS	2833	2712	121

UNSATISFACTORY SAMPLES, 1955

Article asked for	F. or I.*	Nature of Alleged Offence
Baked Beans	I.	Contained 3.8 instead of, in my opinion, not less than 5 per cent. of sugar, expressed as invert sugar.
Honey & Glucose Thin Lunch Biscuits	I.	Contained not more than 4.5 per cent. of honey and 0.3 per cent. of glucose instead of not less than 7 and 10 per cent. respectively, as required by a Code of Practice.
Blanc Mange Powders (2)	I.	The lists of ingredients did not include the item " salt " which substance had been added. The manufacturers have amended the labels.
Bread	I.	Labelled " MILK super fatted." *See* Page 18.
Bread and Butter	F.	The fatty matter consisted of margarine instead of butter. Fined £1 10*s.* 0*d.*
Breakfast Cereal	I.	Contained only 67.5 per cent. of the approximate amount of fat stated on the label.
Breakfast Food	I.	Labelled as containing approximately 10.3 grams of protein per ounce, whereas only 8.9 grams were present.
Glace Cherries	I.	The sample was prepacked but bore no list of ingredients.
Glace Cherries	I.	The sample was prepacked but bore no name and address, or alternatively a registered trade mark, nor a list of ingredients, contrary to the requirements of the Labelling of Food Order, 1953.
Glace Cherries	I.	The list of ingredients included the item " Glucose " but as the ingredient added was " Liquid Glucose," which contains other substances in addition to glucose, it should have been described as such.
Ground Cinnamon	I.	Contained 2.5 instead of not more than 2.0 per cent. of acid-insoluble ash, contrary to the requirements of the British Pharmacopoeia. The acid-insoluble ash consisted mainly of sandy matter. Stock withdrawn from sale.
Dressed Crab	I.	Contained not more than 78 instead of, in my opinion, not less than 95 per cent. of crab meat

*F. — Formal ; I. — Informal Sample.

UNSATISFACTORY SAMPLES, 1955—*continued*

Article asked for	F. or I.*	Nature of Alleged Offence
Crab Dressing	I.	Consisted of crab paste containing not more than **73** per cent. of crab meat. I am of the opinion that the description " Crab Dressing " is liable to be misleading, inasmuch that it may be confused with " Dressed Crab " which is a superior article.
Custard Powder	I.	The list of ingredients did not include the item " salt," which substance had been added.
Canned Fish	I.	Contained added salt, the presence of which was not declared on the label.
Almond Flavour	I.	As the flavouring was not derived wholly from naturally occurring products, the words " Flavouring Essence " on the label should, in accordance with the Code of Practice, have been qualified by the word " Synthetic " or " Artificial." Manufacturers have agreed to amend the label.
Raspberry Flavour	I.	Labelled " RASPBERRY Flavour." In my opinion the word " Flavour " should not have been printed in smaller type than the word " Raspberry."
Bottled Fruit	I.	The ingredients were not listed in the order required by law and an ingredient was described as " Glucose " instead of " Liquid Glucose."
Canned Fruits (7)	I.	The descriptions on the labels of the strengths of the syrups used were considered to be misleading. *See* Page **19**.
Ground Ginger	I.	Contained **9.2** instead of, in my opinion, not more than **7** per cent. of mineral matter, including **2.8** instead of not more than **1** per cent. of sandy matter.
Ice Cream Lollie	I.	The sample was prepacked but bore no list of ingredients.
Ice Lollie	I.	The presence of added citric acid and colouring was not declared in the list of ingredients.
Ice Lollies (2)	I.	The samples were prepacked but bore no list of ingredients nor the names and addresses of the labellers or packers or, alternatively, registered trade marks.

*F. — Formal ; I. — Informal Sample.

UNSATISFACTORY SAMPLES, 1955—*continued*

Article asked for	F. or I.*	Nature of Alleged Offence
Ice Lollie	I.	The sample was prepacked but bore no list of ingredients.
Ice Lollie	I.	The list of ingredients included the item " Dextrose " instead of " Liquid Glucose."
Ice Lollies (2)	I.	The list of ingredients included the item " Glucose " instead of " Liquid Glucose." The manufacturers have amended the labels.
Jam	I.	The sample bore no name of either the packer or the labeller nor an address at which such person carries on business or, alternatively, a registered trade mark. Label amended.
Jam	I.	Labelled " Apple & Raspberry Jam." Contained not more than 5 instead of not less than 10 per cent. of raspberries.
Jam	I.	Labelled " High-Class Apple & Black Currant." Contained not more than 5 instead of not less than 10 per cent. of blackcurrants. The label did not bear the word " Jam," contrary to the requirements of the Labelling of Food Order, 1953.
Jelly Crystals	I.	Contained 82 instead of not less than 84 per cent. of sugar.
Lemon Cheese	I.	Contained 62.6 instead of not less than 65 per cent. of soluble solids.
Lemon Curd	I.	The container bore no address of either the packer or labeller or, alternatively, a registered trade mark.
Canned Meat (Irish Stew)	I.	Contained not more than 40 instead of, in my opinion, not less than 45 per cent. of meat.
Milk (Hot)	F.	Contained at least 5.7 per cent. of extraneous water, due to the use of live steam for heating the milk. Fined £1.
Milk (7)	F/I.	From 10 to 17 per cent. deficient in milk-fat.
Milk (32)	I.	From 7 to 27 per cent. deficient in milk-fat. No action taken as the whole consignments would, in each case, if mixed have been up to standard.

*F. — Formal ; I. — Informal Sample.

UNSATISFACTORY SAMPLES, 1955—*continued*

Article asked for	F. or I.*	Nature of Alleged Offence
Oats	I.	The label claimed that a plateful contains not less than one-sixth of the body's daily requirements of Aneurin Hydrochloride (Vitamin B_1) but the amount of vitamin was not stated in milligrammes per ounce, contrary to the requirements of the Labelling of Food Order, 1953. Label amended.
Candied Peel (3)	I.	Contained about 55 instead of not less than 60 per cent. of sugars. Some of the manufacturers claimed that the article was actually " Cut Mixed Peel," inferring that it need not contain so much sugars. The same standard, however, is applicable to both these articles.
Pickles	I.	Contained turmeric, which item was not included in the list of ingredients given on the label.
Pickled Beetroot (2)	I.	Deficient in acetic acid. *See* Page 20.
Pork Sausages	I.	Contained 66 per cent. of meat, including 37.7 per cent. of fat. Excess of fat.
Pork Sausages	I.	Contained 230 parts per million of sulphur dioxide preservative without declaration. Contravention of the Public Health (Preservatives, etc. in Food) Regulations.
Pork Sausages (3)	I.	Contained 52, 59 and 60 per cent. of meat respectively. I am of opinion that pork sausages should contain not less than 65 per cent. of meat, unless the minimum meat content is declared to the purchaser, in which case it should not be less than 50 per cent.
Pork Sausages	I.	Contained 52 per cent. of meat and 149 parts per million of sulphur dioxide preservative without declaration.
Soft Drink	I.	Labelled " The Real Fruit—The Whole Fruit—and nothing but the Fruit." I am of opinion that, as the product contained other substances than fruit, including a large proportion of added water, the above wording on the label was misleading. Label amended.

*F. — Formal ; I. — Informal Sample.

UNSATISFACTORY SAMPLES, 1955—*continued*

Article asked for	F. or I.*	Nature of Alleged Offence
Fruit Squash	I.	Contained 450 instead of not more than 350 parts per million of sulphur dioxide preservative.
Shredded Suet	I.	Contained 79.0 instead of not less than 83 per cent. by weight of fat.
Toffee Apples (2)	I.	The coatings on the apples contained no fatty matter and therefore the description " Toffee Apple " was misleading. The vendors agreed to alter the description.
Blaud's Pills	I.	Labelled " Prepared in accordance with the British Pharmacopeia," but these pills are not referred to in the current British Pharmacopaeia. The majority of the pills were cracked and failed to disintegrate readily. Old stock; withdrawn from sale.
Blaud's Pills	I.	Labelled " British Pharmacopoeia." The majority of the pills were cracked.
Boric Lint	I.	Contained 7.9 instead of from 3 to 7 per cent. of boric acid, contrary to the requirements of the British Pharmaceutical Codex.
Cod Liver Oil and Malt Extract	I.	Labelled as containing " Compound Solution of Ferrous Phosphate 2.5% v/v B.P.C.," whereas not more than 1 per cent. was present. Moreover, no such solution is mentioned in the current British Pharmaceutical Codex, although a former edition included it.
Cough Mixture	I.	Deficient in sugar to the extent of 15 per cent. of the amount stated in the formula on the label.
Cough Mixture	I.	Deficient in sugar and morphine hydrochloride to the extent of 30 and 48 per cent. of the amounts stated in the formula on the label.
Solution of Hydrogen Peroxide (3)	I.	Contained less acid than that required by the current British Pharmacopoeia.

*F. — Formal ; I. — Informal Sample.

UNSATISFACTORY SAMPLES, 1955—*continued*

Article asked for	F. or I.*	Nature of Alleged Offence
Medicated Lozenges	I.	The formula on the carton included the following item, " Sugar Base (Sucrose and Glucose) q.s.". The sample contained Liquid Glucose, which contains other substances in addition to glucose and therefore the description " Glucose " should have been modified accordingly.
Parrish's Chemical Food (6)	I.	The samples were labelled " B.P.", whereas the formula for the article known as " Parrish's Food," " Parrish's Syrup " or " Chemical Food " is not included in the current British Pharmacopoeia.
Seidlitz Powder	I.	The average weight of the portions of the powders wrapped in blue paper was 11.0 instead of between 9.5 and 10.5 grams, contrary to the requirements of the British Pharmacopoeia.
Soda Mints	I.	Contained 5.2 per cent. of talc. I am of opinion that talc is an undesirable and unnecessary ingredient in soda mints.
Sulphur Tablets	I.	Contained 6.0 per cent. of talc and 36.0 per cent. of calcium carbonate instead of, in my opinion, not more than 3 per cent. of talc and no calcium carbonate.
Vitamin B_1 Tablets	I.	Consisted of 15 (3 mg.) and 10 (1 mg.), instead of 25 (3 mg.), tablets.
Yeast Tablets	I.	Contained 50 micrograms of Vitamin B_1 per gram, instead of from 120-140 micrograms, as labelled. *See* Page 21.

*F. — Formal ; I. — Informal Sample.

Note.—Cautions were issued in respect of all the unsatisfactory samples, unless otherwise stated.

Milk.—The average percentage composition of the 1,530 City samples of milk was: Fat, 3.69 and Non-fatty Solids, 8.75, which figures are very similar to those for the previous year. The number of unsatisfactory samples was 40 (2.6 per cent.) as compared with 80 (4.9 per cent.) in 1954. Thirty-nine of the unsatisfactory samples were deficient in fat but with respect to 32 of these the whole consignments would, in each case, if mixed, have been up to standard and therefore no action was taken. Only one sample, a hot milk, proved to contain extraneous water, which no doubt was due to the heating of the milk by a jet of steam, and the vendor was fined £1. Six letters of caution were issued as compared with 19 in the previous year. Legally, milk is presumed to be not genuine if the fat content is below 3 and/or the non-fatty solids are below 8.5 per cent., unless it is proved by other tests to be genuine. Thirty samples contained less than 8.5 per cent. of non-fatty solids and therefore were suspected to contain extraneous water but these suspicions were not confirmed by the freezing-point test and they were passed as genuine. The number of samples falling into this category in the previous year was 41.

Reference has been made in previous reports concerning the desirability of relating in some way the price payable for milk to its quality. It is therefore interesting to note that a committee representing four dairy-cattle breeds have made representations to the effect that milk from the farms could be classified as above standard, standard, and below standard. Two-pence more than the standard price a gallon would then be paid for the above-standard milk and two-pence less for below standard milk. It is claimed that the scheme would be self-supporting with no extra cost to the housewife. The additional laboratory tests would be made by the wholesalers, many of whom, it is stated, support the scheme, as does the National Association of Dairymen. It is to be hoped that some such scheme may be found practicable as doubtless it would improve the quality of the milk marketed.

A paper by Mr. A. Smith, the deputy public analyst, and the writer on the investigation into a series of genuine milks from one herd which gave abnormally small freezing-point depressions was recently published in " *The Analyst.*" This investigation was referred to in the Annual Report for 1953.

Bread.—The label bore the description " MILK Super Fatted " which was considered liable to be misleading, inasmuch that it could imply that milk exceptionally rich in fat was used and not merely that extra fat had been added. The ingredient used was prepared from partly skimmed milk. The manufacturers referred to the legal use of the words " Milk Bread " to describe a product containing the required amount of skimmed milk powder and suggested that if the label in question had been applied to a bottle of milk it could have implied that the milk was exceptionally rich in fat but not in the case of bread. In the writer's opinion such an interpretation is equally applicable to bread as to milk and, although the use of the word " milk " to describe " skimmed milk " is strongly deprecated, it was suggested that if the wording on the label in question were amended to " Milk Bread Super fatted " it would be legally correct and the ambiguity concerning the nature of the extra fat would be removed. The manufacturers agreed to amend the label by the addition of the word " Bread."

Almond Flavour.—The label bore the words " Flavouring Essence." A Code of Practice stipulates that where the flavouring ingredients are derived wholly from naturally occurring products, the description " Essence " may be used and in other cases the product should be termed " Flavour," " Flavouring," " Synthetic Essence " or " Artificial Essence." The description " Flavouring Essence " is thus a contradiction of terms and if the word " Essence " is used in this case it should be qualified by the word " Synthetic " or " Artificial " in order that a purchaser can distinguish it from a natural essence. It may be mentioned that the Flavouring Essences Order, 1943, defined a flavouring essence as being any essence, emulsion, syrup or concentrate containing either natural or synthetic flavourings which is suitable for use as a flavouring for human food or drink, which definition is at variance with the Code of Practice.

Canned Fruit.—Seven samples of canned fruit were reported against as it was considered that the descriptions on the labels concerning the strengths of the syrups in which the fruits were packed were not justified. In the cases of five of the samples, labelled " in syrup " the original syrups in which the fruits were packed were calculated to contain not more than, 20 25, 25, 25, and 30 per cent. of sugar respectively. The revoked Home-canned Fruit and Vegetables Order, 1950, required that all fruit, other than apples or cherries, shall be packed in syrup of not less than 39 per cent. and although this standard applied only to the home-canned product there would appear to be no reason why it should not equally have applied to the imported article. In the writer's opinion the description on the labels in these cases should have been " in light syrup." In one case the vendors stated that the canners sold the pineapple to them as containing 40 per cent. syrup and suggested that the calculated deficiency in sugar was due to the use of under-ripe fruit. In the other case the canners stated that they based their specifications on the American standards which permit a 30 per cent. original syrup to be described as " heavy syrup." If this is so, it is obviously unsatisfactory that different descriptions can be applied to a syrup of a given strength according to the standards adopted. In this connection it is understood that a Code of Practice within the trade, governing the descriptions applicable to syrups, is being drawn up.

The two remaining samples were labelled " in heavy syrup " and the original syrups were calculated to contain not more than 25 and 35 per cent. of sugar. A Commodity Instruction, issued by the Ministry of Food in 1951, which accepted the syrup standards which were in use under the National Mark Scheme, gave a list of fruits which could be labelled " Packed in heavy syrup " if, except in the case of sweet cherries, the original strength of the syrup was not less than 40 or 45 per cent., according to the type of fruit used.

Ice Cream.—The following table shows a summary of the average results obtained on 46 samples of ice-cream ,as compared with those of the previous year and with the minimum legal standard.

	1955	1954	*Minimum Standards*
Fat %	10.6	9.0	5
Non-fatty Milk Solids %	12.5	13.8	7.5
Sugar %	13.5	13.0	10
Total Solids %	35.3	34.9	

The above results indicate that there has been an appreciable increase in the average fat content and a similar decrease in the non-fatty milk solids.

Only 9 of the samples contained less than 8 per cent. of fat, the minimum and maximum results being 6.2 and 16.9 respectively, and only 5 samples contained less than 10 per cent. of non-fatty milk solids. Thus there would appear to be no reason why the minimum standards for these two ingredients should not be increased accordingly.

Ice Cream Lollies.—The average percentage composition of the 9 samples of ice cream lollies was as follows, Total Solids 27.7, Non-fatty Milk Solids 8.4, Fat 3.8 and Sugar 13.7 The fat contents varied from 2.2 to 8.1 per cent. and the non-fatty milk solids from 6.1 to 11.3 per cent. There is no legal standard for an ice cream lollie.

Ice Lollies.—The 11 samples examined contained from 5.0 to 22.9 per cent. of total solids and from 3.9 to 17.5 per cent. of sugar, only 2 samples containing less than 10 per cent. of sugar. The average percentage composition was, Total Solids 14.8 and Sugar 11.6. Here again there is no legal standard, the only requirement being that if the lollies are prepacked, as a number of them are, a list of ingredients must be given on the package. Such lists have included the following ingredients—citric acid, tartaric acid, sodium phosphate, sodium alginate, saccharin, fruit juice, gelatine, orange oil and colouring.

Pickled Beetroot.—The strength of the acetic acid in the liquor of 2 samples of pickled beetroot was only 1.4 and 1.5 per cent. respectively, consequently a growth of moulds, etc., developed in the pickles a few days after they had been opened. The manufacturers were notified of the opinion that the liquor should contain not less than 2.0 per cent. of acetic acid in order to prevent such spoilage for a reasonable period after opening the jar and experiments were carried out to support such an opinion. The manufacturers replied that intensive research had been carried out to produce pasteurised pickled beetroot with a low acetic acid content so that the natural flavour is retained as far as possible. Whilst such a product may be more palatable than one which is more acid, nevertheless, if it will not keep for a reasonable time after being opened it cannot be regarded as being satisfactory. The matter was allowed to be put to the test by the general public and further representations to the manufacturers will be made if complaints are received.

Sausages.—At the time of writing there are no legal standards for the meat content of sausages, the former revoked minimum standards being 65 and 50 per cent. for pork and beef sausages respectively. The meat contents of the 13 samples of pork sausages varied from 52 to 72 per cent. and those of 8 beef sausages from 52 to 68 per cent., the averages being 63 and 59 for pork and beef sausages respectively. The prices charged for beef sausages ranged from 1s. 8d. to 2s. 0d. per lb. and those for pork from 2s. 0d. to 4s. 0d. per lb. That prices in some cases bore little relationship to the meat content is evidenced by the fact that of two samples of pork sausages purchased at the same time of the year, the one containing the most meat cost 2s. 6d. and the other 4s. 0d. per lb., and incidentally the higher priced article contained the most fat. In the writer's opinion it would be advisable to re-introduce minimum standards both for the lean meat and fat contents of sausages. A number of Court cases in the country, including some in the High Court, have been dismissed when an attempt has been made to adhere to the former minimum standard for the meat content of pork sausages, the reason for which has been that the Court has decided that price should be taken into consideration. A trade Association has recently declared that the public taste is a better judge of the quality of a sausage than the Analyst's test-tube ! It should be pointed out however that, with modern methods of the sophistication of food, taste is not always a reliable guide. Even the mysterious sausage is not immune to science ! Casings are now made from a product derived from seaweed but unfortunately, unless specially treated, the casing does not adhere firmly to the meat on cooking, due to the fact that it has an opposite electric charge to that of the filling. A treatment of the casing with various chemicals reverses the electric charge after which it remains in close affinity with its partner, the meat !

Yeast Tablets.—The label on a much advertised brand of yeast tablets claimed the presence of approximately 120-140 microgrammes of Vitamin B1 per gramme, whereas not more than 70 microgrammes were detected, a deficiency of at least 42 per cent. of the minimum quantity claimed. The manufacturers were exceedingly surprised at this finding and asked for a portion of the sample for analysis, the result of which was in reasonable agreement with ours. They then proceeded to carry out an intensive investigation and discovered with alarm that samples of freshly expressed yeast obtained from reputable breweries did not contain sufficient of the vitamin to permit the dried product to conform with the minimum required by the British Pharmaceutical Codex, 1954. Fortification of yeast with vitamin B is apparently necessary if this standard is to be reached, a procedure which, one would think, was not intended when the standard for a product of nature was drawn up. The manufacturers concerned decided that the only course open to them was to increase the vitamin B content of their product and this they have done by allowing the yeast cells to absorb this substance from an enriched medium rather than by the simple admixture of vitamin B. Apparently the reason why the manufacturers claimed more vitamin B in their product than was actually present was that their method of assay gave no grounds for suspecting any misrepresentation.

Private Samples (Food and Drugs Act).—Sixteen foods and 2 drugs, submitted as the result of complaints by private purchasers, were satisfactory with the exception of the following :—*Flour*, the abnormal flavour was probably due to moulds and not chemicals ; *Soft Drink*, contaminated with a trace of paraffin due to the use of a dirty bottle by the manufacturer ; *Ice Cream Lollie*, contained calcium chloride, which is present in the liquid used by the manufacturer for cooling purposes ; *Bottled Beer*, contained a large fly ; and *Bread*, contained patches of dirty dough, probably derived from the dough mixing machinery.

Preservatives in Food.—Of the 2,477 samples examined for preservatives, 62 contained such addition. In only 3 cases, however, were there contraventions of the Preservative Regulations, and these consisted of sausages, 2, containing permissible amounts of sulphur dioxide preservative but without the necessary declaration of its presence, and a soft drink which contained an excess of this preservative.

A great deal of research is being carried out in this and other countries into the possibilities of using antibiotics as food preservatives. For instance it has been found that the addition of aureomycin to chicken carcases or to the ice in which fish is packed greatly increases the storage life of the products. Such an addition would be illegal in this country and, although aureomycin is stated to be rapidly destroyed when food containing it is cooked, a fear has been expressed that its wide distribution in food might lower its value as an antibiotic in medicine. A search has therefore begun to find a safe substitute which would not have this possible disadvantage from the medical point of view.

Food Standards, Etc.—In 1949, the Food Standards Committee of the Ministry of Food made recommendations concerning standards for the moisture, fat and emulsifying salts contents of the various types of processed cheese, such standards, however, have not been legalised. Representations have been made to this Committee by Public Analysts that standards are urgently required in this country not only for processed cheese but for all cheeses and cheese products. The need for such standards is instanced by the fact that some imported cheeses that were formerly made from full-cream milk are now being prepared from partially skimmed milk and sold under descriptions such as " best," " finest," etc. One of the latest cheese to be introduced to the English market is a curd cheese, prepared almost entirely from skimmed milk, and sold as " Creamed Cottage Cheese," which is considered to be a misdescription, even though a similar product is legally sold under this description in America. There is no objection to the sale of skimmed-milk cheese, which incidentally has a very high dietetic value, provided it is suitably labelled as such.

Regulations have been made concerning the labelling of margarine and advertisements relating to it. If the word " butter," " cream " or " milk " appears on the label it must not be in larger type or more conspicuous than the word " margarine " and no label or advertisement may (a) bear a name or pictorial device which refers to, or is suggestive of, butter or of anything connected with the dairy interest ; (b) claim that the margarine contains or is made with cream or milk, unless the equivalent percentage of butter is stated in the prescribed manner or (c) claim that the margarine contains butter, unless the percentage is stated. Regulations limiting the water content of butter and margarine to not more than 16 per cent. and the butter content of margarine to not more than 10 per cent. have also been made.

The use of low setting gelatine in the manufacture of table jelly crystals has been provided for by Order. An amending Order permits the production of national milk bread from flour to which has been added not less than 6 parts by weight of skim milk powder. In the writer's opinion the term " milk " implies full-cream milk and it is strongly deprecated that the Ministry should sanction the description " national milk bread " for an article containing skim milk powder, even though such bread has been widely advertised by the Ministry as containing skim milk powder. The Mineral Oil in Food (Amendment) Regulations legalises the common use of mineral oil in the form of micro-crystalline wax (a type of paraffin wax) up to 12.5 per cent. in chewing compounds and also makes requirements governing the purity of the wax to be used.

Reference was made in the Annual Report for 1950 to the recommendations of the Food Standards Sub-Committee which limit the amount of arsenic in food. A revised Report has now been issued which, whilst confirming the appropriateness of the general limits previously recommended, *i.e.*, 0.1 parts per million for beverages ready-to-drink and 1 part per million for other foods, recognises that in some cases, principally concentrated foods and food adjuncts used only in small quantities, it would not at present be possible for them to conform with the general limits and a list of such foods has been drawn up, together with those which can be subjected to lower limits. It is recommended that statutory effect be given to these limits.

In the light of representations, some modification of the original proposals concerning the use of colouring matters in foods, referred to in the 1954 Annual Report, have been made in a supplementary Report by the Food Standards Committee. The original list of permitted colours has been slightly modified and the Report sets out in greater detail the Sub-Committee's views on the declaration of the presence in foods of added colour, the following being an extract— " We have come to the conclusion that, with certain exceptions, the labels of all foods sold by retail should bear a declaration when colour has been added. In the case of pre-packed foods, the foods of which are required under the Labelling of Food Order to bear a statement of ingredients, compliance with this provision would suffice. For all other foods sold by retail, except meals sold in catering establishments, we consider that a statement such as ' contains added colouring ' should be affixed to, or prominently displayed on, the food offered for sale. The list of pre-packed foods, which are at present exempted by the Labelling of Food Order from the need to declare ingredients, has been critically examined. We are not convinced that these exemptions should apply in all cases so far as added colouring is concerned ; and are of opinion that if colour is added to any of the following foods its presence should be declared—flavourings, sausages (but not sausage casings), sauces, home canned fruits and vegetables, compound cooking fat, custard and blancmange powders, baking powder and golden raising powder, jams and preserves, table jellies, soft drinks, fish and meat pastes. We also consider that the presence of added colour in smoked fish should be disclosed. We are of opinion that exemptions from the requirement to disclose the presence of added colour are justified only where compliance with a labelling requirement would present undue practical difficulties to the trade without compensating advantage to the consumer. With this in mind we recommend that exemption might operate in respect of the following foods :—bread, flour, confectionery, butter, cheeses, margarine, sugar confectionery, ice cream and other frozen confections. We also consider that the presence of added colour in excisable liquors need not be disclosed." For many years the writer has considered that, where practicable, the presence of added colouring matter in food should be declared and therefore the above proposals are to be welcomed and it is hoped that they will be given legal effect. They will mean, for instance, that the purchaser will know whether kippers have been properly smoked or only partially smoked and then dyed but, on the other hand, the purchaser would not know whether the yellow colour of a cake was due to eggs and/or added colouring.

Fertilisers and Feeding-Stuffs

Six fertilisers and 10 animal feeding-stuffs were submitted by the Official Sampler under the Fertilisers and Feeding-Stuffs Act, of which 11 (about 69 per cent.) did not agree in composition with the statutory statements, after due allowance had been made for the official limits of variation. In the cases of the feeding-stuffs the majority of the discrepancies were due to the manufacturers over declaring the amount of fibre present. Altogether, in only one case could the discrepancy definitely be said to be to the prejudice of the purchaser. Ten feeding-stuffs were also submitted by private purchasers.

Atmospheric Pollution

Rain and Soot Gauges.—Monthly analyses were made of the rain water and insoluble matter collected in three standard gauges situated in Pearson Park, at Springhead Golf Course, and at the Dunswell Waterworks. The monthly averages of the total solid matters (tar, soot, grit, etc.), deposited in the City and in the County (Dunswell) areas are shown below.

	Tons per Square Mile per Month		
	1938	1954	1955
City	25.3	21.6	22.0*
Country	8.4	11.2	9.3

*Excluding February

The above result for the City in the Pearson Park area is equivalent to a fall of about 260 tons of soot and dust per square mile during the year, as compared with less than half this amount at Dunswell.

Smoke.—The total weight of smoke collected from the atmosphere outside the laboratories was the same as in the previous year, namely 3.1 milligrammes per cubic foot of air. The highest daily concentration of smoke was about 40 times the lowest.

Experiments in Newcastle have shown that atmospheric smoke contains substances which produce nodules in the lungs of mice and also skin tumours, whilst another investigation has obtained evidence that the increased incidence of lung cancer in the populace may be due to a single substance, benzpyrene, which is present in atmospheric and tobacco smoke. Tarry smoke, produced by coal burnt inefficiently at relatively low temperatures, contains benzpyrene and the domestic coal fire therefore appears to be largely responsible for its production. It is not a comforting thought to remember when sitting over a cosy coal fire that one may be helping to bring about the death from lung cancer of someone in the vicinity.

Sulphur Gases in the Air.—The concentration of these gases, which are produced by burning coal, coke, gas and fuel oil, has been determined monthly at five points, with the following results expressed as the average weight in milligrammes of sulphur trioxide collected per day on chemically treated cylinders having an exposed surface of 100 square centimetres.

	City			County	
	Central Police Station	Pickering Park	Sutton Road	Wawne	Evan Fraser Hospital
1953	1.25	0.86	1.38	0.54	0.77
1954	1.61	1.08	1.79	0.67	0.94
1955	1.73	1.01	1.45	0.60	0.81

These results indicate that in the central area of the City the pollution by sulphur gases is still increasing and it may be accounted for by the continued rebuilding of the shopping centre with the consequent increased fuel consumption for heating the premises. In the other districts it will be noted that there have been decreases in the amounts of sulphur gases when compared with those of the previous year.

The daily determination of the concentration of sulphur gases in the air outside the laboratories by bubbling air through a chemical solution has been continued.

All the results obtained on atmospheric pollution are forwarded to the Department of Scientific and Industrial Research where they are collated with those from other observers and published.

As the Clean Air Act leaves to local option the decision as to whether or not a smoke control area is to be created it is clear that the public will need to be educated and persuaded that clean air is essential and that the changes necessary for obtaining it are warranted.

Miscellaneous Chemical Samples

FOOD AND DRUGS (not submitted under the Food and Drugs Act).—The following samples were submitted by traders, private purchasers, etc. : *Rum,* 8, for strength ; *Marzipan,* for fitness for human consumption, the discolouration of the surface was not due to contamination ; *Milk,* 2 for composition ; *Milk,* 8, for added water ; *Dried Cod,* for moisture and salt content ; *Glace Cherries,* for ingredients ; *Lemon Squash,* old stock, for fitness for human consumption ; *Whisky,* for presence of iron ; *Jam,* home-made, for copper content ; *Slices of Bread,* stained with a dye ; *Sausages,* for meat content ; *Fat,* 6, for fitness for human consumption, rancidity and/or moisture content ; and *Sterilised Milk,* for sourness. Samples received from Corporation Departments or other Local Authorities were as follows :—*Bacon,* 6, contaminated with copper sulphate ; *Malt Extract,* the abnormal appearance was due to the crystallisation of an ingredient ; *Milk,* 7, for composition ; *Milk,* contained black particles of greasy matter ; *Milk Bottle,* the grey material around the rim contained finely divided iron, probably derived from the bottling machinery ; *Milk,* for the presence of disinfectant ; *Dried Milk,* the dark particles consisted of charred dried milk ; *Dried Milk* and *Condensed Milk,* for fitness for consumption ; *Cocoa Product,* consisted mainly of cocoa shell ; *Cooking Fat,* for staleness ; *Cochineal,* for ammonia ; *Gelatine,* for purity ; *Confectionery* (*Sweet*), dubious matter consisted of coconut ; and *Cornflour,* contained mouse droppings.

WATERS.—The average residual chlorine content of the 305 samples of the City Supply water drawn at these laboratories was 0.14 parts per million. Twenty-one samples of water from Corporation supplies were examined chemically for their fitness for human consumption and a further 52 for their salt content. Analyses were made of 125 samples taken from the River Hull and its tributaries in connection with the new water scheme for the City. A sample of water taken from a house fitted with copper water pipes contained 2.0 parts per million of copper. Whilst this amount may not be injurious to health it is undesirable as it causes staining in baths, etc., and accelerates the corrosion of galvanised iron tanks and especially aluminium pans and kettles. Further samples were taken from the same and other houses fitted with copper pipes and the maximum copper content was 7.2 parts per million in the water drawn from a recently completed house. Experiments were then carried out in which tap water was allowed to remain in contact with hard and soft new copper pipes for varying periods, the maximum copper content being 7.2 parts per million in a sample which had a contact time of about 16 hours, after 2 hours contact the copper content was not more than 2.3. It was shown by these experiments and by the examination of samples taken from houses where the pipes had been in use for some years that with the passage of time the copper content of the water falls to negligible amounts, due no doubt to the deposition of a protecting film of salts on the pipes. The Medical Officer of Health considered that the matter should be brought to the notice of the Ministry of Health and at an interview at which the writer was present it was concluded that there was little need for concern from the health point of view. It was also mentioned that some waters containing appreciable amounts of organic matter contained an inhibitor against the corrosion of copper the nature of which is unknown but might be a tannin. The City's water, being practically free from organic matter, is not likely to contain such an inhibitor. Altogether 118 samples were examined in the investigation. Other samples consisted of the following :—*Condensate Waters*, 12, for oil content ; *Ground Waters*, 6, for sources ; *Ground Waters*, 7, for composition ; *Borehole Waters*, 19, and *City Supply Waters*, 2, for sulphate content ; *Waters*, 37, for residual chlorine ; *Waters*, 20, for fitness for drinking ; *Waters*, 9, for presence of sewage ; *Ditch Waters*, 10, for suitability for discharge into sewer ; *Drinking Water*, for cause of abnormal taste, due to phenolic substances from jointing material ; *Softened Waters*, 2, for suitability for adding to spirits ; and *Water*, for nature of deposit, consisted of iron.

TOXICOLOGICAL SPECIMENS.—Ten specimens of *blood*, 5 of urine, 4 of *stomach contents* and a *vomit* were examined for barbiturates, 9 of which were positive, including one specimen examined on behalf of the City Coroner in connection with a case of suicide. Of 4 further specimens of *stomach contents*, one contained barbiturates and potassium bromide, two contained barbiturates but no phenytoin, and the remaining specimen contained no codeine phosphate, whilst of 2 *urines* one contained no abortifacients and in the other a large amount of aspirin was present. A specimen of *blood* was examined on behalf of the East Riding Coroner and found to contain a high concentration of carbon monoxide due to coal gas poisoning which was thus established to be the cause of death and not a heart attack. No drugs were detected in 2 *vomits* and a *swab* from greyhounds and no excessive amounts of silica were found in 2 specimens of *lungs* from men who had been exposed for many years to the risk of silicosis in their occupations. Specimens of *blood*, *urine* and *stomach contents* from a man found unconscious in charge of a car contained barbiturates and alcohol, the amount of the latter in the blood indicated that nearly a pint of spirits had been consumed. A patient in hospital noticed that when about to be injected with a *solution*, marked " Normal Saline Solution for injection B.P.," an unusual frothing occurred and analysis revealed the inexplicable presence of 0.06 per cent. of cetrimide, which is a detergent having disinfecting properties. No alcohol or other irritant poisons were detected in a *stomach* submitted by the City Coroner.

OTHER SAMPLES.—*Transformer and Switch Oils*, 2,245, for acidity ; *Transformer Oil*, contained a red dye, probably derived from the covering of the wires in the transformer ; *Lubricating Oils*, 2, for viscosity ; *Linseed Oil*, 24, for gravity ; *Soils*, 10, for liability to cause corrosion of iron or to attack concrete ; *Kettle Scales*, 3, copper present ; *Deposits from Cisterns*, 2, consisted mainly of chalk, together with moss in one case ; *Soap and Soap Powders*, 13, for composition ; *Domestic Bleach*, 2, for chlorine content ; *Sewage Effluents*, 9, for efficiency of treatment ;

Sewage, 3, for composition ; *Industrial Glove,* for compliance with specification ; *Waxed Fish Carton,* stained with fish oil and not mineral oil ; *Rat Baits,* 2, for salt content ; *Handkerchief,* semen present ; *Cocoa Presscake,* 3, for presence of earthy matter and filth ; *Jointing from Water Main,* contained phenolic compounds ; *Aggregate and Whinstone,* for presence of limestone ; *Material impregnated with ultramarine,* for cause of objectionable smell in brick pond ; due to action of acid substances on the ultramarine ; *Greaseproof lining paper,* the stains consisted of aluminium ; *Metal food container,* unfit for holding food due to extensive rusting ; *Trade Effluent,* for fitness for discharge into sewer ; *Copper Sheathed Cable,* corrosion due to condensation of moisture and the action of atmospheric carbon dioxide ; *Deposit from water-softener,* consisted mainly of chalk ; *Beech Wood,* for water content and presence of sea water, and *Alcohol and Material from Tank,* the contamination of 1,140 tons of alcohol was due to the presence of oil in the rusted iron beneath the heating pipes of the ship's tank which had previously carried oil, the residues of which had not been removed during cleaning.

Bacteriological Examinations

A total of 1,436 samples were examined bacteriologically and consisted of the following :—*Designated Milks,* 589 ; *Non-designated Milks,* 7 ; *Condensed Milk, Bottle of Milk* and *Orange Drinks,* 6, moulds present ; *Orange Drinks,* 2, yeasts present ; *Ice Cream,* 46 ; *Ice Cream Lollies,* 9 ; *Ice Lollies,* 34 ; *Tinned Tomatoes* ; *Cocoa Presscakes,* 213 ; *Washed Milk Bottles,* 36 ; *Deposit in Water,* mould ; and *Waters,* 490.

Designated Milks.—One or more of the following tests are applied to designated milk according to its type : (a) the Phosphate Test which, in the case of pasteurised milk, determines whether the heat treatment has been adequate ; (b) the Turbidity Test which gives the same information with respect to sterilised milk, and (c) the Methylene Blue Test which indicates the keeping quality of the milk. All the 589 samples examined passed the appropriate tests, with the exception of 17 of the 135 tuberculin tested milks examined, which were of unsatisfactory keeping quality, indicating uncleanliness in production on the farms where they were bottled.

Ice Cream.—The results of the examination of the 46 samples by the methylene blue test were as follows :—Grade I, 34 ; Grade II, 9 ; Grade III, 1 and Grade IV, 2. The samples falling into Grades I and II were considered to be satisfactory and represented 93 per cent. of the total examined, as compared with 92 per cent. in the previous year.

Ice or Ice Cream Lollies.—Of the 43 samples examined bacteriologically, all the ice lollies were satisfactory, whilst two ice cream lollies were returned as being unsatisfactory, due to the presence of excessive numbers of Bacillus Coli, an organism indicative of uncleanliness.

Cocoa Presscake.—Two hundred and thirteen samples of presscake, submitted by a local manufacturer, were examined for the numbers of bacteria, moulds and yeasts present.

Waters.—Four hundred and eighty-seven samples of water from the Corporation's Supply were examined, together with 3 other waters.

East Riding of Yorkshire County Council

Of the 519 samples submitted under the Food and Drugs Act, the following 58 were reported as being unsatisfactory, representing 11.2 per cent. of the total—*Milk,* 3, deficient in fat ; *Milk,* contained extraneous water ; *Milk Curd,* 3, contained over 80 per cent. of water ; *Pork Sausages,* 9, *Beef Sausages* and *Beef Sausage Meat,* deficient in meat ; *Pork Sausages,* 2 and *Beef Sausages,* contained excess fat in proportion to the lean meat ; *Potted Meat,* 10, deficient in meat ; *Dried Peel,* 3, *Butter Creams, Glace Cherries,* and *Marzipan,* 3, ingredient stated as " Glucose " instead of " Liquid Glucose," which contains other substances in addition to glucose ; *Dried Peel* and *Marzipan,* 2, contained liquid glucose or artificial colouring without declaration in the list of ingredients ; *Butter Toffee,* the ingredients were listed as " Dairy Butter, Sugar, Glucose, Full Cream Milk, etc." The sample contained only about 1 per cent. of butter-fat instead of not less than 4 per cent., the list of ingredients was incomplete, the items were not in the correct order and the item " Glucose " should have read " Liquid Glucose " ; *Butter Crunch,* deficient in butter ; *Walnut Toffee,* labelled " Made with Butter," in which case the whole of the added fat should have been butter-fat, whereas only about half was butter-fat ; *Honey,* contained 17.5 instead of not more than 8 per cent. of sugar (sucrose) apparently due to the feeding of the bees with sugar ; *Lemon Curd* and *Jam,* deficient in sugar ; *Jam,* contained a large piece of coarse jute twine ; *Table Jelly,* 2, setting test unsatisfactory ; *Almond Macaroons* ingredients listed in the wrong order ; *Buttered Tea Cake,* margarine used instead of butter ; *Vitamin Pea Nuts,* contained no added vitamin and therefore the description was liable to be misleading ; *German Table Mustard,* contained salt without declaration ; *Ice Cream,* 2, deficient in fat ; and *Caviar,* the stated ingredients were " White Fish Caviar. Salt and Colouring Added." The term " White Fish " has no definite meaning, as it is used (a) as the name of a particular fish (b) as a description of any fish having white flesh and (c) by " The White Fish Authority " which deals with all kinds of fish other than herring. The term " White Fish " is therefore capable of having a generic meaning and so is not an appropriate designation according to the Labelling of Food Order, which requires a specific designation. The term " Caviar " is generally taken to mean the prepared and salted roe of the sturgeon but apparently it can also be legitimately applied to the roe of certain other large fish. The particular fish (White Fish also called Lump Fish) from which the sample was made is not a large fish when compared with the sturgeon and therefore the term " Caviar " would seem to be inapplicable. The importers maintained that the product, described as " White Fish Caviar," could not be taken for sturgeon or any other type of caviar. If such a description was intended to convey to the purchaser the fact that the article was prepared from the roe of the White Fish, which incidentally is pink, why was it coloured blue-black to simulate the roe of the sturgeon? No explanation from the importers was forthcoming.

Hull and Goole Port Health Authority

During the year, 4 samples of drinking water from Ships and 16 samples from Waterboats were examined chemically. All were passed as satisfactory.

Of 51 samples examined for the presence of preservatives, 37 were unpreserved, 11 contained permissible amounts of preservatives, and 3 contained excessive amounts of preservative. Included in the above were 26 samples of fruit and/or wrappers which were examined for the presence of thiourea and diphenyl, all being free, except for two fruit wrappers which contained permissible amounts of diphenyl.

All the 7 samples of Apples examined contained arsenic on their skins, 4 containing above the limit of 1 part per million of arsenic, the highest figure being 3.6 parts per million. In addition, two of these samples contained permissible amounts of lead and 4 contained over the limit of 2 parts per million, the highest figure being 8.8 parts per million.

A sample of Edible Fat was found to consist of hydrogenated cottonseed oil, no evidence being obtained of the presence of fat of animal origin.

The total number of samples examined was 79.

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